

**Grain Inspection Advisory Committee  
Meeting Summary  
October 27-28, 2015  
Kansas City, MO**

**Background Information**

The Grain Inspection Advisory Committee (Advisory Committee), appointed by the Secretary of Agriculture, is comprised of 15 members who represent all segments of the grain industry. They include grain producers, processors, merchandisers, handlers, exporters, consumers, grain inspection agencies, and scientists. In past years, the Advisory Committee met twice annually to advise the Grain Inspection, Packers and Stockyards Administration (GIPSA) on the programs and services it delivers under the U.S. Grain Standards Act (USGSA) and the Agricultural Marketing Act of 1946, as amended. Recommendations by the Advisory Committee help the Grain Inspection, Packers and Stockyards Administration (GIPSA) to better meet the needs of its customers who operate in a dynamic and changing marketplace.

**Welcome**

Larry Mitchell, Administrator, GIPSA, welcomed everyone to the meeting and introductions to the new members.

**Resolution Review/Reauthorization**

The three resolutions that the Advisory Committee passed in April 2015 were reviewed.

An overview of the Reauthorization of the USGSA was presented which included provisions that were reauthorized and changes to the USGSA.

**Field Management Initiatives**

FGIS provided an overview of the Export Inspections and Tonnage-update on corn, soybean, wheat, and sorghum movements and the market forces that are driving the increase or decline for each; the Federal Grain Inspection Program (FGIS) Licensing Program and the opportunity for improvements in coming years; the standards that are currently under review; the 580 Fee Rule; Service in Texas where the incumbent Official Agency was not redesignated; the new Lake Charles, LA, Elevator; and staffing initiatives where FGIS is running several programs to build for the next generation of FGIS leaders.

**Rice Inspection Equipment Update**

FGIS provided an update on rice imaging and rice milling equipment. FGIS has discontinued development work on the Rice Studio for determination of milling yield and broken kernels because of continuing difficulties with sample presentation. Commercially available imaging instruments appear to have resolved the presentation issue and FGIS will instead evaluate these commercial instruments for use in official rice inspection.

FGIS next discussed plans for evaluating the Zaccaria rice mill as requested by the US Rice Producers Association, a group representing some rice growers in the six rice producing states. The discussion covered applicable regulations, proposed evaluation criteria, and outstanding research issues related to the evaluation.

### **Condensation Study Update**

FGIS provided a summary of previous condensation studies along with the results of the 2015 elevator study in New Orleans, LA. All studies show that when condensation conditions are present, on average, the moisture increases and the test weight decreases. For individual samples, however, it is difficult to predict the direction and magnitude of the changes due to the many variables involved. FGIS's New Orleans Field Office uses a procedure that allows the applicant to request, when condensation conditions are present, for the grain to stand in an open pan for up to 30 minutes prior to the official determination of moisture and test weight. The study confirms that the 30 minute delay will mitigate some of the changes on the moisture results due to condensation.

### **Biotech Test Kits**

FGIS provided an update on the evaluation of quantitative protein-based rapid test kits for the detection of genetically engineered proteins in grains and the degree of concordance between this technology and DNA-based detection methods. To date, FGIS has performed analyses of quantitative rapid test kits to compare manufacturer's samples and FGIS-generated samples, as well as analyses to assess sensitivity and specificity of quantitative rapid test kits compared to DNA-based methods. Pending analyses include the initiation of a survey study using "real-world" grain samples. Challenges inherent to this emerging quantitative technology include issues with the quantification of stacked traits, variability of protein expression levels, and lack of certified protein-based reference materials.

### **Near Infrared Transmittance (NIRT)**

FGIS presented the final information from the NIRT Equivalency Study conducted by Iowa State University through a cooperative agreement with FGIS. The study was limited to the three NIRT models that met the National Type Evaluation Program (NTEP) criteria as of September 2014. The three models received their NTEP approval at different points in time using different sample sets. This study reviewed the performance of the models on a common sample set of wheat, barley, corn and soybeans. Data for all but barley protein was presented. All models had similar repeatability (variability for repeated tests on the same instrument) and were well within the NTEP tolerances indicating that the hardware/design is suitable. While the variability between the instrument results and the applicable reference methods are good for the individual calibrations, all calibration models could be improved by including newer varieties. Finally, the reproducibility (variability between models) is not equivalent. The study showed for wheat protein that including all three models had three times the reproducibility as the FGIS approved model which results in a 0.6 percent range in the protein results. Research indicates that it is possible to improve the agreement or reduce the range in protein results by developing calibrations using a common core set of samples such as those used in this study.

### **Mycotoxin Test Kits**

FGIS presented information on the mycotoxin test kit program. An update was given on a previous resolution regarding revision to the test kit performance criteria for aflatoxins, deoxynivalenol, and fumonisins. The revised criteria are expected to be issued in the first quarter of Fiscal Year 2016. Information supporting the recommended elimination of the qualitative test kit program was presented. The proposed effective date for eliminating the qualitative test kit evaluation program was December 31, 2015, and qualitative test kits would be phased out of the inspection system as their certificates expire. Also presented was an issue with rounding numbers for certifying mycotoxin test results. FGIS recommended using two significant figures for certification to be consistent with the test kit evaluation program, apply same procedure for all mycotoxins, and avoid loss of significant information.

### **International Activities**

FGIS provided an update on the status of quality discrepancies received from importers in FY15. Also discussed was the outreach accomplishments for FY15 and a new sorghum crop quality survey.

### **Quality Assurance Initiatives**

FGIS provided an updated on the Quality Committee that was established in May 2015. The committee's scope of responsibility is the FGIS Quality Assurance Program. Current projects for the committee include two Advisory Committee resolutions. The first is the review of the quality tolerances that was recommended in July 2014. The second is the development of quality performance reports for the official agencies that was recommended in April 2015.

Also provided was an update on the FGIS inspection performance program. The program was initiated in March 2015 to ensure that inspections are accurate and consistent and to proactively identify and correct any inspection variations in a timely manner. Lastly, the Official Agency Performance was discussed where during FY 15, the Quality Assurance and Compliance Division saw an improvement in official agency overall performance scores for those official agencies that were reviewed under the FGIS Quality Management Program. The program is a key component for evaluating the performance of official service providers in meeting their legal and regulatory obligations under the United States Grain Standards Act.

### **FGISonline**

FGIS provided information on two of the current projects for FGISonline for FY 16. A discussion on the current status of FGISonline and the future plans for development of FGISonline including a customer portal.

The benefits were also discussed which are greater customer access to information, reduced manual data entry, and reduction of errors.

## **Financial Updates**

Financial updates were provided on the Inspection and Weighing (520) Program, Official Agencies (530) Program, Rice Inspection (570) Program, and the Commodity Inspection (580) Program.

## **Next Meeting**

The Advisory Committee recommends the next meeting be held April 18-19, 2016, and would prefer the meeting to be held in Portland, Oregon, or at the National Grain Center in Kansas City, Missouri.

## **Advisory Committee Resolutions**

The following resolutions were introduced and passed by the Committee:

1. The Advisory Committee recommends that Qualitative Mycotoxin Tests be phased out as the current supply meets their expiration date.
2. The Advisory Committee recommends FGIS move forward to certify testing results to a minimum of 2 significant figures as a default for mycotoxins. However, FGIS will allow the results on the certificate to be shown as either a whole number or the nearest tenth at the request of the applicant using current FGIS rounding rules.
3. The Advisory Committee commends FGIS on the development of the USDA Rice Studio Rice program; and recommends that imaging technology be studied for possible use in the determination of percent Dark Hard and Vitreous (DHV) for spring wheat sub classes. FGIS should also study the possible use of this technology to determine shrunken and broken kernel count in all wheat classes.
4. The Advisory Committee encourages FGIS to initiate a study with rough rice to determine the effectiveness of the Grainman Miller No. 65 for predicting commercial rice milling yield. Factors to consider in addition to milling yield are total broken kernels, whiteness and chalkiness. Newer rice hybrids along with their harvest and drying history should be included in the study.
5. The Advisory Committee encourages FGIS to obtain background information pertinent to understanding the possible degree of condensation that could form when cold grain is unloaded from barges or railcars and transferred to a FGIS inspection site at a humid location. The intent is to record grain temperature data as already provided by moisture meter determinations on sublots of grain. Grain temperatures from a random sampling of 100 sublots during each month of the year would provide an indication of the months of the year when moisture condensation is most likely to occur. Data could show that if seasonally cold grain is found, it might be prudent to allow the cold samples to have a few additional minutes to warm up before testing for moisture and test weight.

6. The Advisory Committee recommends FGIS make the financial results available on the FGIS web site. This information would include sufficient detail to show revenues, expenses and operating reserves for each account (520, 530, 570 and 580). Additionally in the 520 account each of the revenue and expense area should be detailed to reflect the national tonnage fee, local tonnage fee and the hourly/inspection fees and the expenses attributed to each.
7. The Advisory Committee recommends that FGIS explore options for standardizing calibrations between NIRT models to improve the overall reproducibility.

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